

21 This application is a 371 of International application PCT/IB98/01091 filed on July 16, 1998, which claims benefit of U.S. provisional application 60/052,631, filed on July 16, 1997.

Page 33, line 23, to page 34, line 10, amend to read as follows:

C2 Also part of the present invention are polypeptides that are homologous to the initially selected polypeptide bearing at least an epitope unit. By homologous peptide according to the present invention is meant a polypeptide containing one or several amino acid substitutions in the amino acid sequence of the initially selected polypeptide carrying an epitope unit. In the case of an amino acid substitution, one or several - consecutive or non-consecutive- amino acids are replaced by "equivalent" amino acids. The expression "equivalent" amino acid is used herein to name any amino acid that may be substituted for one of the amino acids belonging to the initial polypeptide structure without decreasing the binding properties of the corresponding peptides to the monoclonal antibody that has been used to select the parent peptide and without decreasing the immunogenic properties against the specified pathogenic microorganism. Thus, an homologous polypeptide according to the present invention has the same immunological characteristics as the parent polypeptide (for example as the polypeptide of SEQ ID NO 5) with respect to the ability to confer increased resistance to infection with bacteria belonging to the tuberculosis complex. These equivalent amino acids may be determined either by their structural homology with the initial amino acids to be replaced, by the similarity of their net charge, and by the results of the cross-immunogenicity between the parent peptides and their modified counterparts.

Page 54, line 15, to page 55, line 2, amend to read as follows:

C3 The ESAT-6 protein consists of 95 amino acids and was previously shown to be present in the *M. tuberculosis* ST-CF. Since *lhp* is next to *esat-6*, and potentially encodes a polypeptide of 100 amino acids, we investigated its eventual presence in the *M. tuberculosis* ST-CT. Low molecular weight ST-CF fractions were separated by preparative SDS-PAGE and submitted to systematic N-terminal sequencing. As shown in figure 11, fraction number 4 yielded a peptide sequence matching almost perfectly (14/15) with the N-terminus deduced from the *M. tuberculosis lhp* gene sequence. This 10 kDa culture filtrate protein was referred to as CFP-10. To further characterize the *lhp* gene product, we over-expressed and purified recombinant CFP-10 in *E. coli*, in fusion with a stretch of 8 histidines. Separation of CFP-10 by SDS-PAGE indicated an apparent molecular weight of 14 kDa (Figure 12 B), slightly higher than the apparent molecular weight of recombinant ESAT-6 (His6) (10 kDa). The difference of size between native and recombinant CFP-10 may be attributable to the presence of the histidine tag. These results demonstrated that *M. tuberculosis lhp* is a gene and encodes a small polypeptide, which like ESAT-6, is found in the low-molecular weight fraction of the ST-CF. In spite of the fact that no obvious exportation signal was identified so far in the sequence of LHP, our data suggest this protein is released extracellularly during broth cultivation of *M. tuberculosis*, as already observed for ESAT-6.

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Page 55, lines 16-22, amend to read as follows:

Guinea pigs

C4 CFP10 has been tested on BCG vaccinated, *M. avium* and *M. tuberculosis* infected and naive animals. In BCG vaccinated, *M. avium* infected and naive animals no DTH response was measured compared to *M. tuberculosis* infected where a significant DTH response was observed.